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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,701	07/02/2003	James Leonard Platt	AUS920030396US1	5875
34533	7590	05/18/2007	EXAMINER	
INTERNATIONAL CORP (BLF) c/o BIGGERS & OHANIAN, LLP P.O. BOX 1469 AUSTIN, TX 78767-1469			MAHMOOD, REZWANUL	
ART UNIT		PAPER NUMBER		
2164				
MAIL DATE		DELIVERY MODE		
05/18/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/612,701	PLATT, JAMES LEONARD
	Examiner	Art Unit
	Rezwanul Mahmood	2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 August 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

1. This action is in response to the communication filed on April 13, 2006.

Response to Amendment

2. Claims 1-18 are pending in this office action.
3. In view of the amendment filed on 04/13/2006, the objections to the drawings and specification have been withdrawn.

Response to Arguments

4. Applicant's arguments filed on April 13, 2006 have been fully considered but they are not persuasive for the following reasons:

Applicant argues that Weissman does not teach or even suggest the features "inferring from the schema dependencies among a fact table and related dimension tables...inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables".

Examiner respectfully disagrees all of the allegations as argued. Examiner, in his previous office action, gave detail explanation of claimed limitation and pointed out exact locations in the cited prior art.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111 [R-1]

Interpretation of Claims-Broadest Reasonable Interpretation:

During patent examination, the pending claims must be 'given the broadest

reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 162 USPQ 541,550-51 (CCPA 1969).

Weissman teaches in column 3 lines 1-11 and lines 36-38, column 5 lines 26-32, column 7 lines 42-49 and column 10 lines 24-42 a schema defining the relationships between tables and columns, how data is to be manipulated and used to populate the tables in a datamart where the schema has one or more fact tables and dimensional tables. A datamart can be created from the schema definitions by automatically building the tables and automatically extracting and converting data usable by the datamart. So while building a datamart from the schema definitions, dependencies among a fact table and related dimensional tables are inferred, and while the tables are generated from the schema definitions, data is inserted into the rows and columns of the generated tables.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made

to combine the teachings of Veronese with the teachings of Weissman to add a dependency list to insert the database expressions of dependencies to have new development methodologies, which will be both rapid and easily manageable and modifiable by the users (Veronese: Paragraph 11, lines 3-5) and to have an improved data warehousing technology (Weissman: Column 2, lines 61-62) and to combine the teachings of Medicke with the teachings of Weissman and Veronese to determine if dimension data exists for each foreign key in the fact table and inserting such data if it did not exist to generate a data warehouse by incorporating data warehouse information in business objects to provide subscribed business objects and generating star-schema tables of the data warehouse from the subscribed business objects (Medicke: Paragraph 9).

In response to applicant's argument on pages 16-18, a *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. Once such a case is established, it is incumbent upon appellant to go forward with objective evidence of unobviousness. In re Fielder, 471 F.2d 640, 176 USPQ 300 (CCPA 1973).

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification.

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Reference is made to MPEP 2144.01 - Implicit Disclosure

"[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968)

Subsequent to an analysis of the claims it was revealed that a number of limitations recited in the claims belong in the prior art and thus encompassed and/or implicitly disclosed in the reference (s) applied and cited. It is logical for the examiner to focus on the limitations that are "crux of the invention" and not involve a lot of energy and time for the things that are not central to the invention, but peripheral. The examiner is aware of the duties to address each and every element of claims, however, it is also important that a person prosecuting a patent application before the Office or an stakeholders of patent granting process make effort to understand the level of one of ordinary skill in the (data processing) art or the level one of skilled in the (data processing) art, as encompassed by the applied and cited references. The administrative convenience derived from such a cooperation between the attorneys and examiners benefits the Office as well the patentee.

In view of the above, the examiner contends that all limitations as recited in the claims have been addressed in this Action.

For the above reasons, Examiner believed that rejection of the last Office action was proper.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 7, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Weissman (US Patent 6,212,524).

7. With respect to claim 1, Weissman discloses a method for populating a database, the method comprising:
providing a database having a schema (Weissman: Column 2, lines 26-38, and 67; Column 3, lines 1-2; Column 5, lines 26-32);
inferring from the schema dependencies among a fact table and related dimension tables (Weissman: Column 3, lines 1-2, and lines 36-38; Column 5, lines 26-32; Column 7, lines 42-49; Column 10, lines 24-42); and
inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables (Weissman: Column 3, lines 1-11; Column 10, lines 24-42).

8. With respect to claim 7, Weissman discloses a system for populating a database, the system comprising:
means for providing a database having a schema (Weissman: Column 2, lines

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26-38, and 67; Column 3, lines 1-2; Column 5, lines 26-32); means for inferring from the schema dependencies among a fact table and related dimension tables (Weissman: Column 3, lines 1-2, and lines 36-38; Column 5, lines 26-32; Column 7, lines 42-49; Column 10, lines 24-42); and means for inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables (Weissman: Column 3, lines 1-11; Column 10, lines 24-42).

9. With respect to claim 13, Weissman discloses a computer program product for populating a database, the computer program product comprising:
 - a recording medium (Weissman: Figure 1);
 - means, recorded on the recording medium, for providing a database having a schema (Weissman: Column 2, lines 26-38, and 67; Column 3, lines 1-2; Column 5, lines 26-32);
 - means, recorded on the recording medium, for inferring from the schema dependencies among a fact table and related dimension tables (Weissman: Column 3, lines 1-2, and lines 36-38; Column 5, lines 26-32; Column 7, lines 42-49; Column 10, lines 24-42); and
 - means, recorded on the recording medium, for inserting, in accordance with the dependencies, rows of data into the fact table and rows of data into the dimension tables (Weissman: Column 3, lines 1-11; Column 10, lines 24-42).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-6, 8-12, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weissman (US Patent 6,212,524) in view of Veronese (US Publication 2004/0210445).

12. With respect to claim 2, Weissman discloses the method of claim 1 as set forth in the 35 U.S.C. 102 rejection above wherein inferring dependencies further comprises:

selecting from metadata describing a schema for the database expressions of dependencies (Weissman: Column 7, lines 23-29; Figure 1);
Weissman does not discloses explicitly:

inserting the expressions of dependencies into a dependency list.

The Veronese reference, however, discloses building a dependency list for the expressions of dependencies (Veronese: Paragraph 120, lines, 1-12).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to combine the teachings of Veronese with the teachings of Weissman to add a dependency list to insert the database expressions of dependencies to have new development methodologies, which will be both rapid and

easily manageable and modifiable by the users (Veronese: Paragraph 11, lines 3-5) and to have an improved data warehousing technology (Weissman: Column 2, lines 61-62).

13. Claims 3-6, 9-12, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weissman (US Patent 6,212,524) in view of Veronese (US Publication 2004/0210445) and further in view of Medicke (US Publication 2004/0236786).

14. With respect to claim 3, Weissman in view of Veronese discloses the method of claim 1 as set forth in the 35 U.S.C. 102 and 103 rejections above,

However, does not disclose explicitly wherein inserting rows of data further comprises:

determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table; and
for each foreign key for which related dimension data does not exist, inserting a row of dimension data into a dimension table related to the fact table through the foreign key.

The Medicke reference, however, discloses determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table, and for each foreign key for which related dimension data does not exist, inserting a row of dimension data into a dimension table related to the fact table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9;

Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to combine the teachings of Medicke with the teachings of Weissman and Veronese to determine if dimension data exists for each foreign key in the fact table and inserting such data if it did not exist to generate a data warehouse by incorporating data warehouse information in business objects to provide subscribed business objects and generating star-schema tables of the data warehouse from the subscribed business objects (Medicke: Paragraph 9).

15. The following claims 4-6, 9-12, and 15-18 are rejected under the same rational.

16. With respect to claim 4, Weissman in view of Veronese and in further view of Medicke discloses the method of claim 1 wherein inserting rows of data further comprises:

determining whether related dimension data exists for each foreign key in each row of data inserted into a first dimension table (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and

for each foreign key for which related dimension data does not exist, inserting a row of dimension data into a second dimension table related to the first dimension table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67;

Column 15, lines 1-15; Column 37, lines 30-35).

17. With respect to claim 5, Weissman in view of Veronese and in further view of Medicke discloses the method of claim 1 wherein inserting rows of data further comprises:
reading the rows of data from a first database, the first database comprising dependencies among tables in the database (Weissman: Column 9, lines 43-60);
and
inserting rows of data into a second database, the second database comprising at least the same dependencies as in the first database (Weissman: Column 10, lines 23-57; Medicke: Figure 9).
18. With respect to claim 6, Weissman in view of Veronese and in further view of Medicke discloses the method of claim 1 wherein a dependency comprises a rule for the database, enforced by a database management system, that a first record in a first table must exist in the database before a second record in a second table may be inserted in the database (Veronese: Paragraph 120, lines 1-12; Medicke: Paragraph 14, lines 8-10; Paragraph 65, lines 9-11).
19. With respect to claim 8, Weissman in view of Veronese discloses the system of claim 7 wherein means for inferring dependencies further comprises:
means for selecting from metadata describing a schema for the database

expressions of dependencies (Weissman: Column 7, lines 23-29; Figure 1); and means for inserting the expressions of dependencies into a dependency list (Veronese: Paragraph 120, lines, 1-12).

20. With respect to claim 9, Weissman in view of Veronese and in further view of Medicke discloses the system of claim 7 wherein means for inserting rows of data further comprises:
means for determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and
for each foreign key for which related dimension data does not exist, means for inserting a row of dimension data into a dimension table related to the fact table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15).
21. With respect to claim 10, Weissman in view of Veronese and in further view of Medicke discloses the system of claim 7 wherein means for inserting rows of data further comprises:
means for determining whether related dimension data exists for each foreign key in each row of data inserted into a first dimension table (Medicke: Paragraph

73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and

for each foreign key for which related dimension data does not exist, means for inserting a row of dimension data into a second dimension table related to the first dimension table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15; Column 37, lines 30-35).

22. With respect to claim 11, Weissman in view of Veronese and in further view of Medicke discloses the system of claim 7 wherein means for inserting rows of data further comprises:
means for reading the rows of data from a first database, the first database comprising dependencies among tables in the database (Weissman: Column 9, lines 43-60); and
means for inserting rows of data into a second database, the second database comprising at least the same dependencies as in the first database (Weissman: Column 10, lines 23-57; Medicke: Figure 9).
23. With respect to claim 12, Weissman in view of Veronese and in further view of Medicke discloses the system of claim 7 wherein a dependency comprises a rule for the database, enforced by a database management system, that a first record in a first table must exist in the database before a second record in a second

table may be inserted in the database (Veronese: Paragraph 120, lines 1-12; Medicke: Paragraph 14, lines 8-10; Paragraph 65, lines 9-11).

24. With respect to claim 14, Weissman in view of Veronese discloses the computer program product of claim 13 wherein means for inferring dependencies further comprises:

means, recorded on the recording medium, for selecting from metadata describing a schema for the database expressions of dependencies (Weissman: Column 7, lines 23-29; Figure 1); and

means, recorded on the recording medium, for inserting the expressions of dependencies into a dependency list (Veronese: Paragraph 120, lines, 1-12). The suggestion or motivation for doing so is the same as the 35 U.S.C 103 rejection above on claim 2.

25. With respect to claim 15, Weissman in view of Veronese and in further view of Medicke discloses the computer program product of claim 13 wherein means for inserting rows of data further comprises:

means, recorded on the recording medium, for determining whether related dimension data exists for each foreign key in each row of data inserted into the fact table (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and for each foreign key for which related dimension data does not exist, means,

recorded on the recording medium, for inserting a row of dimension data into a dimension table related to the fact table through the foreign key (Medicke:

Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15).

26. With respect to claim 16, Weissman in view of Veronese and in further view of Medicke discloses the computer program product of claim 13 wherein means for inserting rows of data further comprises:

means, recorded on the recording medium, for determining whether related dimension data exists for each foreign key in each row of data inserted into a first dimension table (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15); and

for each foreign key for which related dimension data does not exist, means, recorded on the recording medium, for inserting a row of dimension data into a second dimension table related to the first dimension table through the foreign key (Medicke: Paragraph 73, lines 10-27; Figure 7, and 9; Weissman: Column 13, lines 25-67; Column 14, lines 8-67; Column 15, lines 1-15; Column 37, lines 30-35).

27. With respect to claim 17, Weissman in view of Veronese and in further view of Medicke discloses the computer program product of claim 13 wherein means for

inserting rows of data further comprises:

means, recorded on the recording medium, for reading the rows of data from a first database, the first database comprising dependencies among tables in the database (Weissman: Column 9, lines 43-60); and

means, recorded on the recording medium, for inserting rows of data into a second database, the second database comprising at least the same dependencies as in the first database (Weissman: Column 10, lines 23-57; Medicke: Figure 9).

28. With respect to claim 18, Weissman in view of Veronese and in further view of Medicke discloses the computer program product of claim 13 wherein a dependency comprises a rule for the database, enforced by a database management system, that a first record in a first table must exist in the database before a second record in a second table may be inserted in the database (Veronese: Paragraph 120, lines 1-12; Medicke: Paragraph 14, lines 8-10; Paragraph 65, lines 9-11).

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rezwanul Mahmood whose telephone number is (571)272-5625. The examiner can normally be reached on M - F 10 A.M. - 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Shahid Alam
PRIMARY EXAMINER

Ram
Rezwanul Mahmood
Examiner
Art Unit 2164

May 10, 2007